

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/580/176
Source: IFWO
Date Processed by STIC: 4/20/07

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IFWO

RAW SEQUENCE LISTING

DATE: 04/20/2007

PATENT APPLICATION: US/10/580,176

TIME: 16:03:59

Input Set : E:\sequence listing yeda-039 ST25.txt

Output Set: N:\CRF4\04202007\J580176.raw

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3 <110> APPLICANT: YEDA Research and Development
5 <120> TITLE OF INVENTION: DNA VACCINES ENCODING HSP60 PEPTIDE FRAGMENTS FOR TREATING
6   AUTOIMMUNE DISEASES
8 <130> FILE REFERENCE: YEDA/039 PCT
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/580,176
C--> 10 <141> CURRENT FILING DATE: 2006-05-22
10 <160> NUMBER OF SEQ ID NOS: 15
12 <170> SOFTWARE: PatentIn version 3.3
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 20
16 <212> TYPE: PRT
17 <213> ORGANISM: Artificial
19 <220> FEATURE:
20 <223> OTHER INFORMATION: Human HSP60 epitope
22 <400> SEQUENCE: 1
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25 1           5           10           15
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29           20
32 <210> SEQ ID NO: 2
33 <211> LENGTH: 20
34 <212> TYPE: PRT
35 <213> ORGANISM: Artificial
37 <220> FEATURE:
38 <223> OTHER INFORMATION: Human HSP60 epitope
40 <400> SEQUENCE: 2
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43 1           5           10           15
46 Gly Asp Lys Ala
47           20
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51 <211> LENGTH: 20
52 <212> TYPE: PRT
53 <213> ORGANISM: Artificial
55 <220> FEATURE:
56 <223> OTHER INFORMATION: Human HSP60 epitope
58 <400> SEQUENCE: 3
60 Lys Gly Asp Lys Ala Gln Ile Glu Lys Arg Ile Gln Glu Ile Ile Glu
61 1           5           10           15
64 Gln Leu Asp Val
65           20
68 <210> SEQ ID NO: 4
69 <211> LENGTH: 20

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70 <212> TYPE: PRT
71 <213> ORGANISM: Artificial
73 <220> FEATURE:
74 <223> OTHER INFORMATION: Human HSP60 epitope
76 <400> SEQUENCE: 4
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79 1           5           10           15
82 Gly Gly Thr Ser
83           20
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87 <211> LENGTH: 20
88 <212> TYPE: PRT
89 <213> ORGANISM: Artificial
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Human HSP60 epitope
94 <400> SEQUENCE: 5
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97 1           5           10           15
100 Thr Asp Ala Leu
101           20
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105 <211> LENGTH: 20
106 <212> TYPE: PRT
107 <213> ORGANISM: Artificial
109 <220> FEATURE:
110 <223> OTHER INFORMATION: Human HSP60 epitope
112 <400> SEQUENCE: 6
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115 1           5           10           15
118 Asp Ser Leu Thr
119           20
122 <210> SEQ ID NO: 7
123 <211> LENGTH: 20
124 <212> TYPE: PRT
125 <213> ORGANISM: Artificial
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Human HSP60 epitope
130 <400> SEQUENCE: 7
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133 1           5           10           15
136 Asn Ala Gly Val
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142 <212> TYPE: PRT
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145 <220> FEATURE:
146 <223> OTHER INFORMATION: Human HSP60 epitope
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151 1          5          10          15
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155          20
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160 <212> TYPE: PRT
161 <213> ORGANISM: Artificial
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Human HSP60 epitope
166 <400> SEQUENCE: 9
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173          20
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178 <212> TYPE: PRT
179 <213> ORGANISM: Artificial
181 <220> FEATURE:
182 <223> OTHER INFORMATION: human hsp60 epitope
184 <400> SEQUENCE: 10
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187 1          5          10          15
190 Leu Ala Asp Ala
191          20
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195 <211> LENGTH: 15
196 <212> TYPE: PRT
197 <213> ORGANISM: Mycobacterium tuberculosis
199 <400> SEQUENCE: 11
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202 1          5          10          15
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206 <211> LENGTH: 2691
207 <212> TYPE: DNA
208 <213> ORGANISM: Homo sapiens
210 <400> SEQUENCE: 12
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213 cctccagtga atcccagaag actctggaga gttctgagca gggggcggca ctctggcctc      120
215 tgattggtcc aaggaaggct ggggggcagg acgggaggcg aaaccctgg aatattcccg      180
217 acctggcagc ctcatcgagc tcggtgattg gctcagaagg gaaaaggcgg gtctccgtga      240
219 cgacttataa aagcccaggg gcaagcggtc cggataacgg ctagcctgag gagctgctgc      300
221 gacagtccac tacctttttc gagagtgact cccgttgtcc caaggcttcc cagagcgaac      360
223 ctgtgcggtc gcaggcaccg gcgcgtcgag tttccggcgt ccggaaggac cgagctcttc      420
225 tcgcggtacc agtggtccgt ttccagcccc caatctcaga gccgagccga cagagagcag      480
227 ggaaccgcat ggccaaagcc gcggcagtcg gcacgcacct gggcaccacc tactcctgcg      540
229 tgggggtgtt ccaacacggc aaggtggaga tcacgcgcaa cgaccagggc aaccgcacca      600
231 cccccagcta cgtggccttc acggacaccg agcggctcat cggggatgcy gccaagaacc      660

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233 aggtggcgct gaacccgcag aacaccgtgt ttgacgcgaa gcgcctgac ggccgcaagt 720
235 tcggcgaccc ggtggtgcag tcggacatga agcactggcc tttccagggtg atcaacgacg 780
237 gagacaagcc caaggtgcag gtgagctaca agggggagac caaggcattc taccgccagg 840
239 agatctcgtc catggtgctg accaagatga aggagatcgc cgaggcgtag ctgggctacc 900
241 cggtgaccaa cgcggtgac accgtgccgg cctacttcaa cgactcgtag cgccaggcca 960
243 ccaaggatgc ggggtgtgat gcggggctca acgtgctgcg gatcatcaac gagcccacgg 1020
245 ccgccgccat cgcctacggc ctggacagaa cgggcaaggg ggagcgcaac gtcctgatct 1080
247 ttgacctggg cgggggcacc ttcgacgtgt ccattcctgac gatcgacgac ggcattcttcg 1140
249 aggtgaaggc cacggccggg gacaccacc tgggtgggga ggactttgac aacaggctgg 1200
251 tgaaccactt cgtggaggag ttcaagagaa aacacaagaa ggacatcagc cagaacaagc 1260
253 gagccgtgag gcggctgctc accgcctgct agagggccaa gaggaccctg tcgtccagca 1320
255 ccagggccag cctggagatc gactccctgt ttgaggcat cgacttctac acgtccatca 1380
257 ccaggcgag gttcgaggag ctgtgctccg acctgttccg aagcaccctg gagcccgtgg 1440
259 agaaggctct gcgcgacgcc aagctggaca aggccagat tcacgacctg gtcctggctg 1500
261 ggggctccac ccgcatcccc aaggtgcaga agctgctgca ggacttcttc aacgggcgcg 1560
263 acctgaacaa gagcatcaac cccgacgagg ctgtgggcta cggggcgggc gtgcaggcgg 1620
265 ccattcctgat gggggacaag tccgagaacg tgcaggacct gctgctgctg gacgtggctc 1680
267 ccctgtcgct ggggctggag acggccggag gcgtgatgac tgccctgatc aagcgcaact 1740
269 ccaccatccc caccaagcag acgcagatct tcaccacta ctccgacaac caaccgggg 1800
271 tgctgatcca ggtgtacgag ggcgagagg ccatgacgaa agacaacaat ctgttggggc 1860
273 gcttcgagct gagcggcatc cctccggccc caggcgtgcc ccagatcgag gtgaccttcg 1920
275 acatcgatgc caacggcatc ctgaacgtca cggccacgga caagagcacc ggcaaggcca 1980
277 acaagatcac catcaccaac gacaagggcc gcctgagcaa ggaggagatc gagcgcattg 2040
279 tgcaggaggc ggagaagtac aaagcggagg acgagggtgca gcgcgagagg gtgtcagcca 2100
281 agaacgccct ggagtcctac gccttcaaca tgaagagcgc cgtggaggat gaggggctca 2160
283 agggcaagat cagcgaggcc gacaagaaga aggtgctgga caagtgtcaa gaggtcatct 2220
285 cgtggctgga cgccaacacc ttggccgaga aggacgagtt tgagcacaag aggaaggagc 2280
287 tggagcaggt gtgtaacccc atcatcagcg gactgtacca gggtgccggt ggtcccgggc 2340
289 ctgggggctt cggggctcag ggtcccaagg gagggctctg gtcaggcccc accattgagg 2400
291 aggtagatta ggggcctttc caagattgct gtttttgtt tggagcttca agactttgca 2460
293 tttcctagta tttctgtttg tcagttctca atttctgtg tttgcaatgt tgaaattttt 2520
295 tggatgaagta ctgaacttgc ctttttttcc ggtttctaca tgcagagatg aattttatact 2580
297 gccatcttac gactatttct tctttttaat acacttaact caggccattt ttttaagttg 2640
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302 <210> SEQ ID NO: 13

303 <211> LENGTH: 2912

304 <212> TYPE: DNA

305 <213> ORGANISM: Homo sapiens

307 <400> SEQUENCE: 13

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312 gcctttcagg cagaaattgc ccagttgatg tcattgatca tcaatacttt ctactcgaac 180
314 aaagagatct ttctgagaga gctcatttca aattcatcag atgcattgga caaaatccgg 240
316 tatgaaactt tgacagatcc cagtaaatta gactctggga aagagctgca tattaacctt 300
318 ataccgaaca aacaagatcg aactctcact attgtggata ctggaattgg aatgaccaag 360
320 gctgacttga tcaataacct tgggtactat gccaaagtctg ggaccaaagc gttcatggaa 420
322 gctttgcagg ctggtgcaga tatctctatg attggccagt tcggtgttgg tttttattct 480
324 gcttatttgg ttgctgagaa agtaactgtg atcaccaaac ataacgatga tgagcagtag 540
326 gcttgggaggt cctcagcagg gggatcattc acagtgagga cagacacagg tgaacctatg 600

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328 ggtcgtggaa caaaagttat cctacacctg aaagaagacc aaactgagta cttggaggaa 660
330 cgaagaataa aggagattgt gaagaaacat tctcagttta ttggatatcc cattactctt 720
332 tttgtggaga aggaacgtga taaagaagta agcgatgatg aggctgaaga aaaggaagac 780
334 aaagaagaag aaaaagaaaa agaagagaaa gagtcggaag acaaacctga aattgaagat 840
336 gttggttctg atgaggaaga agaaaagaag gatggtgaca agaagaagaa gaagaagatt 900
338 aaggaaaagt acatcgatca agaagagctc aacaaaacaa agcccatctg gaccagaaat 960
340 cccgacgata ttactaatga ggagtacgga gaattctata agagcttgac caatgactgg 1020
342 gaagatcact tggcagtgaa gcatttttca gttgaaggac agttggaatt cagagccctt 1080
344 ctatttgtcc cactgacgtgc tccttttgat ctgtttgaaa acagaaagaa aaagaacaat 1140
346 atcaaatgtg atgtacgcag agttttcatc atggataact gtgaggagct aatccctgaa 1200
348 tatctgaact tcattagagg ggtggttagac tcggaggatc tccctctaaa catatcccgt 1260
350 gagatgttgc aacaaagcaa aattttgaaa gttatcagga agaatttggg caaaaaatgc 1320
352 ttagaactct ttactgaact ggcggaagat aaagagaact acaagaaatt ctatgagcag 1380
354 ttctctaaaa acataaagct tggaatacac gaagactctc aaaatcgga gaagctttca 1440
356 gagctgttaa ggtactacac atctgcctct ggtgatgaga tggtttctct caaggactac 1500
358 tgcaccagaa tgaaggagaa ccagaaacat atctattata tcacaggtga gaccaaggac 1560
360 caggtagcta actcagcctt tgtggaacgt cttcggaac atggcttaga agtgatctat 1620
362 atgattgagc ccattgatga gtactgtgtc caacagctga aggaatttga ggggaagact 1680
364 ttagtgtcag tcaccaaaga aggcctggaa cttccagagg atgaagaaga gaaaaagaag 1740
366 caggaagaga aaaaaacaaa gtttgagaac ctctgcaaaa tcatgaaaga catattggag 1800
368 aaaaaagttg aaaaggtggt tgtgtcaaac cgattggtga catctccatg ctgtattgtc 1860
370 acaagcacat atggctggac agcaaacatg gagagaatca tgaaagctca agccctaaga 1920
372 gacaactcaa caatgggtta catggcagca aagaaacacc tggagataaa ccctgaccat 1980
374 tccattattg agaccttaag gcaaaaggca gaggtgata agaacgacaa gtctgtgaag 2040
376 gatctggtca tcttgcttta tgaaactgcg ctctgtctt ctggcttcag tctggaagat 2100
378 cccagacac atgctaacag gatctacagg atgatcaaac ttggtctggg tattgatgaa 2160
380 gatgacccta ctgctgatga taccagtgtc gctgtaactg aagaaatgcc accccttgaa 2220
382 ggagatgacg acacatcacg catggaagaa gtagactaat ctctggctga gggatgactt 2280
384 acctgttcag tactctacaa ttcctctgat aatatatttt caaggatgtt tttctttatt 2340
386 tttgttaata ttaaaaagtc tgtatggcat gacaactact ttaaggggaa gataagattt 2400
388 ctgtctacta agtgatgctg tgatacctta ggcactaaag cagagctagt aatgcttttt 2460
390 gagtttcatg ttggttcttt cacagatggg gtaacgtgca ctgtaagacg tatgtaacat 2520
392 gatgttaact ttgtgtggtc taaagtgtt agctgtcaag ccggatgcct aagtagacca 2580
394 aatcttggtt ttgaagtgtt ctgagctgta tcttgatgtt tagaaaagta ttcgttacat 2640
396 cttgtaggat ctactttttg aacttttcat tccctgtagt tgacaattct gcattgacta 2700
398 gtcctctaga aataggttaa actgaagcaa cttgatggaa ggatctctcc acagggttg 2760
400 ttttccaaag aaaagtattg tttggaggag caaagttaaa agcctaccta agcatatcgt 2820
402 aaagctgttc aaatactcga gccagtcct gtggatggaa atgtagtgtc cgagtcacat 2880
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407 <210> SEQ ID NO: 14

408 <211> LENGTH: 573

409 <212> TYPE: PRT

410 <213> ORGANISM: Homo sapiens

412 <400> SEQUENCE: 14

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415 1 5 10 15

418 Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe

419 20 25 30

422 Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/20/2007
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date